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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,097

05/15/2007

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09812.0046

1729

22852 7590 01/05/2010  
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EXAMINER

ADAMS, BRET W

ART UNIT

PAPER NUMBER

2862

MAIL DATE

DELIVERY MODE

01/05/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,097	<b>Applicant(s)</b> TAKEI ET AL.	
	<b>Examiner</b> BRET ADAMS	<b>Art Unit</b> 2862	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 October 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 8,9 and 13-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Election/Restrictions***

3. Applicant's election of Species 1, Figure 5, corresponding to claims 1-7 and 10-12 in the reply filed on 10/13/2009 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
4. Claims 8-9, 13-38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/13/2009.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 1-3, and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimada (US 5905598).

7. Regarding claim 1, Shimada discloses a lens position detecting device for detecting the position of a lens (17) on a base (2,4) in an optical axis direction, comprising: a position detecting magnet (57) mounted on said lens (see Fig 9); a magnetic force detecting sensor (58) mounted on said base, for generating a detected signal having a magnitude depending on the intensity of a magnetic force generated from magnetic poles of said position detecting magnet; and positional information generating means (inherent) for generating positional information of said lens on said base in said optical axis direction based on the magnitude of said detected signal (see c.8 I.20-46 and Figs 4,7, and 9).

8. Regarding claim 2, Shimada further discloses wherein said lens is held by a lens holder frame (40), said position detecting magnet is mounted on said lens holder frame, and said magnetic force detecting sensor is mounted on said base (see Fig 9).

9. Regarding claim 3, Shimada further discloses the device further comprising a lens guide mechanism (38,39) for holding said lens holding frame (40) on said base for movement in said optical axis direction (see c.7 I.65 through c.8 I.4 and Fig 9).

10. Regarding claim 5, Shimada further discloses wherein said magnetic force detecting sensor comprises a Hall device (see c.8 I.20-46).

11. Regarding claim 6, Shimada further discloses wherein said magnetic force detecting sensor is disposed on a straight line passing through said position detecting magnet parallel to the optical axis of said lens (see Fig 9, wherein in a cross-sectional

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view such as the exemplary drawing shown in Fig 7 but depicting the structure of Fig 9, a line drawn parallel to the optical axis and offset by the distance between the optical axis and the lens holder-mounted magnet 57 would pass through both the magnet and the detector 58).

12. Regarding claim 7, Shimada further discloses wherein said position detecting magnet is mounted on said lens holder frame (40) (see Fig 9), and said magnetic force detecting sensor is disposed on a straight line passing through said position detecting magnet parallel to the optical axis of said lens (see Fig 9, wherein in a cross-sectional view such as the exemplary drawing shown in Fig 7 but depicting the structure of Fig 9, a line drawn parallel to the optical axis and offset by the distance between the optical axis and the lens holder-mounted magnet 57 would pass through both the magnet and the detector 58).

13. Claims 1-7, 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakamoto (US 5432639).

14. Regarding claim 1, Sakamoto discloses a lens position detecting device for detecting the position of a lens (8) on a base (2) in an optical axis direction, comprising: a position detecting magnet (11,31) mounted on either said lens; a magnetic force detecting sensor (12,32,33) mounted on said base (see Figs 1, 8 and c.4 l.2-3), for generating a detected signal having a magnitude depending on the intensity of a magnetic force generated from magnetic poles of said position detecting magnet (see Figs 1, 8 and c.3 l.58 through c.4 l.13); and positional information generating means

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(inherent) for generating positional information of said lens on said base in said optical axis direction based on the magnitude of said detected signal (see c.3 l.48 through c.4 l.32).

15. Regarding claim 2, Sakamoto further discloses wherein said lens is held by a lens holder frame (9), said position detecting magnet is mounted on said lens holder frame (see Fig 1), and said magnetic force detecting sensor is mounted on said base (see Figs 1, 8 and c.4 l.2-3).

16. Regarding claim 3, Sakamoto further discloses the device further comprising a lens guide mechanism (4b) for holding said lens holding frame on said base for movement in said optical axis direction.

17. Regarding claim 4, Sakamoto further discloses wherein said position detecting magnet is magnetized in a direction parallel to said optical axis direction (see Figs 1 and 2, specifically the orientation of the N-S magnetic poles in Fig 2).

18. Regarding claim 5, Sakamoto further discloses wherein said magnetic force detecting sensor comprises a Hall device (see c.3 l.64-65).

19. Regarding claim 6, Sakamoto further discloses wherein said magnetic force detecting sensor is disposed on a straight line passing through said position detecting magnet parallel to the optical axis of said lens (see Fig 1, wherein in a cross-sectional view such as the exemplary drawing shown in Fig 12 but depicting the structure of Fig 1, a line drawn parallel to the optical axis and offset by the distance between the optical axis and the lens holder-mounted magnet 11 would pass through both the magnet and the detector 12).

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20. Regarding claim 7, Sakamoto further discloses wherein said position detecting magnet is mounted on said lens holder frame (9) (see Fig 1), and said magnetic force detecting sensor is disposed on a straight line passing through said position detecting magnet parallel to the optical axis of said lens (see Fig 1, wherein in a cross-sectional view such as the exemplary drawing shown in Fig 12 but depicting the structure of Fig 1, a line drawn parallel to the optical axis and offset by the distance between the optical axis and the lens holder-mounted magnet 11 would pass through both the magnet and the detector 12).

21. Regarding claim 10, Sakamoto further discloses wherein said position detecting magnet (31) is mounted on said lens holder frame (9) (see c.5 l.1-6), and said magnetic force detecting sensor comprises a first magnetic force detecting sensor (32) and a second magnetic force detecting sensor (33) and is mounted on said base (2) (see c.5 l.1-6,30-43).

22. Regarding claim 11, Sakamoto further discloses wherein said first magnetic force detecting sensor and said second magnetic force detecting sensor are disposed in respective two locations one on each side of said position detecting magnet (where it is noted that bar magnet 31 is composed of at least a pair magnets 31a,31b, see c.5 l.6-9), on a straight line passing through said position detecting magnet parallel to said optical axis (see Fig 8, wherein in a cross-sectional view such as the exemplary drawing shown in Fig 12 but depicting the structure of Fig 8, a line drawn parallel to the optical axis and offset by the distance between the optical axis and the lens holder-mounted magnet 31 would pass through both the magnet and the detectors 32,33).

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23. Regarding claim 12, Sakamoto further discloses wherein said positional information generating means generates said positional information based on either one of a first detected signal supplied from said first magnetic force detecting sensor and a second detected signal supplied from said second magnetic force detecting sensor (see c.5 l.1-43, wherein detector 32 outputs a voltage corresponding to the density of flux from the magnet which directly relates to the lens position).

### ***Conclusion***

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRET ADAMS whose telephone number is (571)270-5028. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Clayton Laballe can be reached on (571) 272-1594. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/W.B. Perkey/  
for Clayton E. LaBalle, SPE of Art  
Unit 2862

/BRET ADAMS/  
Examiner, Art Unit 2862